

DATA EVALUATION REPORT

NAF-313

STUDY TYPES: ACUTE ORAL TOXICITY - RAT (870.1100)
ACUTE DERMAL TOXICITY - RABBIT (870.1200)
ACUTE INHALATION TOXICITY - RAT (870.1300)
PRIMARY EYE IRRITATION - RABBIT (870.2400)
PRIMARY DERMAL IRRITATION - RABBIT (870.2500)
DERMAL SENSITIZATION - GUINEA PIG (870.2600)

SUMMARY: ACUTE TOXICITY ONE-LINERS (870.1100 through 870.2600)

Prepared for

Registration Division
Office of Pesticide Programs
U.S. Environmental Protection Agency
1921 Jefferson Davis Highway
Arlington, VA 22202

Prepared by

Chemical Hazard Evaluation Group
Toxicology and Risk Analysis Section
Life Sciences Division
Oak Ridge National Laboratory
Oak Ridge, TN 37831

Primary Reviewer:
Susan Chang, M.S.
S. Chang

Signature: /s/Robert Ross for

Date: 11/09/98

Secondary Reviewers:
H. Tim Borges, M.T.(A.S.C.P.), Ph.D., D.A.B.T.

Signature: /s/H. T. Borges

Date: 11/09/98

Robert H. Ross, M.S., Group Leader

Signature: /s/Robert Ross

Date: 11/09/98

Quality Assurance:
LeeAnn Wilson, M.A.

Signature: /s/L.A. Wilson

Date: 11/09/98

Disclaimer

This review may have been altered subsequent to the contractor's signatures above.

Oak Ridge National Laboratory, managed by Lockheed Martin Energy Research Corp. for the U.S. Department of Energy under contract number DE-AC05-96OR22464.

DATA REVIEW FOR ACUTE INHALATION TOXICITY TESTING (870.1300, previously §81-3)

Product Manager: 03
MRID No.: 44597722

Contract Reviewer: Susan Chang
EPA Reviewer: Byron T. Backus, Ph.D.
Study Completion Date: November 4, 1997
Study No.: 971097

Testing Facility: Toxicology Research Laboratory, Health and Environmental Research Laboratories, Dow Chemical Company

Author: McGuirk, R.J.

Quality Assurance (40 CFR §160.12): Included (p. 4)

Test Material: NAF-313 (11.3% DE-105); Lot F0216-141; Reference No. TSN101367; tan, opaque liquid, pH~9

Species: Rats; Fischer 344

Age: Approximately 9 weeks

Weight: Males: 197-204 g; Females: 121-130 g

Source: Charles River Laboratories, Inc., Raleigh, NC

Conclusion:

1. **LC₅₀ (mg/L):**
Males: > 17.02 mg/L
Females: > 17.02 mg/L
Combined: > 17.02 mg/L
2. **The estimated LC₅₀ is** > 17.02 mg/L
3. **Tox. Category:** IV **Classification:** Acceptable

Procedure (including deviations from 870.1300): None

Exposure Concentration mg/L (Gravimetrically Determined)	Number of Deaths/Number Tested		
	Males	Females	Combined
17.02	0/5	0/5	0/10

Clinical Observations: No rats died during the study. All rats had rapid respiration and seven rats had excessive soiling during exposure. Urine and fecal soiling, decreased activity, and/or periocular or perinasal soiling were noted on all rats. All recovered by day 2. All males and four females lost weight on day 2 and gained weight the remainder of the study. The other female had normal body weight gain.

Gross Necropsy Findings: No visible lesions related to treatment were noted.

Chamber Atmosphere

Grav. Concentration ^a	MMAD	GSD
17.02 mg/L	3.96 µm	1.83

^aTime weighted average.

Other Information: The nominal concentration was 22.68 mg/L. Approximately 34% of particles had an aerodynamic diameter <3 µm.

Chamber Environment ^a	
Chamber Volume	42 L
Airflow	30 LPM
Temperature	21°C
Relative Humidity	78% ^b

^a Nose only

^b 2% at initial exposure and 81-90% at 30 minutes through the end of exposure; The initial low relative humidity (2%) is due to compressed air - the only source of air to the chamber. No explanation of the high relative humidity was given (possibly due to water in the formulation?).

Comment: The exposure concentration appears to be excessive.